

ORDINANCE NO. \_\_\_\_\_

An Ordinance establishing a Public Stormwater Quality Project Fund to implement projects that benefit stormwater runoff quality and approving the Metropolitan Department of Water and Sewerage Services' regulations governing the payment into the Public Stormwater Quality Project Fund for development projects unable to comply with existing water quality standards.

WHEREAS, the Metropolitan Government deems it necessary for stormwater regulations to require Grading Permit sites to provide post-construction stormwater quality and quantity control measures to prevent community impacts.

WHEREAS, the Metropolitan Government holds a National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System permit (the "Permit") issued by the state of Tennessee that is managed by the Department of Water and Sewerage Services (MWS); and,

WHEREAS, as required by the Permit, the Metropolitan Government's stormwater regulations require developers to meet certain standards (the "Standards") related to water quality; and,

WHEREAS, size, topography, current and/or previous use(s), existing conditions, and other characteristics preclude some otherwise developable sites ("Limited Sites") from complying fully with the Standards; and,

WHEREAS, for Limited Sites, the Permit authorizes the Metropolitan Government to accept payment into a Public Stormwater Quality Fund of a fee towards the implementation of stormwater quality projects by development projects that cannot fully comply with the Standards; and,

WHEREAS, creation of a Public Stormwater Quality Project Fund and acceptance of payment instead of full compliance with the Standards, as contemplated by the Permit, would benefit the citizens of Nashville and Davidson County and community resources by improving local water quality resources.

NOW, THEREFORE, BE IT ENACTED BY THE COUNCIL OF THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY:

Section 1. A Public Stormwater Quality Project Fund is hereby established for the purposes of receiving payments contemplated by this Ordinance, to be used exclusively for the implementation of stormwater projects designed to reduce pollutants in and the quantity of storm water runoff in Metro Nashville.

Section 2. That the Metropolitan Department of Water and Sewerage Services' regulations developed in compliance with the requirements of the Permit specifying: (a) criteria for determining whether a development project cannot meet applicable standards for stormwater runoff reduction and pollutant removal and are eligible to pay into the Public Stormwater Project

Fund; and (b) a means of calculating the applicable payment, attached hereto and incorporated herein (Exhibit 1), are hereby approved.

Section 3. That amendment to this legislation may be approved by resolution.

Section 4. This ordinance shall take effect from and after its final passage, the welfare of The Metropolitan Government of Nashville and Davidson County requiring it.

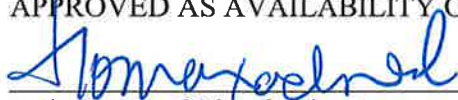
RECOMMENDED BY:

  
\_\_\_\_\_  
Scott A. Potter, Director  
Water and Sewerage Services

INTRODUCED BY:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Council Member(s)

APPROVED AS AVAILABILITY OF FUNDS:

  
\_\_\_\_\_  
Talia Lomax-O'dneal, Director  
Department of Finance

APPROVED AS TO FORM  
AND LEGALITY:

  
\_\_\_\_\_  
Assistant Metropolitan Attorney

# Public Stormwater Quality Project Fund Process

Metro's National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System (NPDES MS4) permit grants Metro the ability to allow development projects that cannot meet water quality standards to pay into a Public Stormwater Quality Project Fund. The funds shall be used to implement projects that generally benefit stormwater runoff quality.

Metro Water Services (MWS) will follow a methodical process for determining which projects will be allowed to pay into the fund and selecting mitigation projects. The goal will be to implement stormwater mitigation projects that will benefit water quality within Metro Nashville. The following guidelines have been established to guide this process:

## Qualified Projects

Projects applying for payment into the Public Stormwater Quality Project Fund must prove through sound engineering analysis that they cannot meet the required Metro post-construction water quality standards. This shall include site plans, subsurface investigations, calculations, etc. demonstrating that compliance with the standard is not possible due to site constraints that can include:

- Contaminated soils or Brownfield designation
- Inability to add treatment due to footprint of existing structure(s) or existing infrastructure configuration
- Project site characteristics such as low infiltrative soils, shallow bedrock, shallow groundwater, or enhanced probability of sinkhole formation
- Other applicable post construction limitations as outlined in Metro's MS4 Permit

The cost of providing treatment does not constitute a site constraint. Applications will be reviewed by a committee of Metro Water Services Development Services and Stormwater Staff. A minimal level of treatment as determined by staff will be required for most sites.

## Calculation of Payment

Per the *Potential For a Fee-in-lieu for Stormwater Management in Nashville* study from January 2015, a \$45/ cubic foot rate of unmet stay-on water volume was recommended. This rate is based upon a \$30/cubic foot estimate for the cost of construction and long term maintenance of a bioretention area, plus the 1.5 multiplier required by Metro's NPDES permit.

Treating one inch of rainfall from an acre of impervious surface with a Rv of 0.95 would cost:

$$1 \text{ acre} \left( \frac{43,560 \text{ ft}^2}{\text{acre}} \right) (1 \text{ in rain}) \left( \frac{1 \text{ ft}}{12 \text{ in}} \right) 0.95 \left( \frac{\$45}{\text{ft}^3} \right) = \$155,183$$

The payment can also be adjusted if the water quality treatment standard is only partially met.

- For sites trying to meet a runoff reduction standard:  
 RR = runoff reduction value achieved by site (%)  
 Std = runoff reduction standard for site (80%, 60%, or 40%)  
 Area = area receiving partial treatment (acres)

$$\text{Cost with partial treatment} = \$155,000 \left( 1 - \frac{RR}{Std} \right) \times \text{area}$$

- For sites that can only use a 50% unit when an 80% is required:  

$$\text{Cost with partial treatment} = \$155,000 \times 0.375 \times \text{area}$$

***Total Payment***

$$= \$155,000(\text{untreated impervious area in acres}) \\ + \text{Cost with partial treatment}$$

**Mitigation Types**

Potential mitigation projects will include retrofitting sites developed prior to the implementation of Metro's post-construction water quality standards with new stormwater quality treatment or improving existing stormwater quality treatment. Strategies will include, but are not limited to:

- Infiltration Trenches
- Bioretention Basins
- Grass Swales
- Tree Planting
- Detention Pond Conversion
- Stream Mitigation

**Mitigation Siting Locations**

Choosing the appropriate location within Metro to implement stormwater mitigation projects will be a careful prioritization process detailed below.

1. Projects will be divided into the combined and separate storm sewer systems.\*
2. Mitigation projects will be targeted to previously developed Metro-owned properties.
3. Priority will be given to mitigation projects that are within the same Hydrologic Unit Code 8 Watershed of the development activities paying into the fund.
4. If no Metro properties can be found within the appropriate areas to perform mitigation, NPDES may pursue a public/private partnership to perform a project on non-metro property.

\* Funds paid by sites within the MS4 jurisdiction area will pay for projects within the MS4 area, while funds paid by sites within the CSS area will pay for projects within the CSS area.

**Mitigation Project Approval Process**

All initial mitigation location siting processes will be conducted by the NPDES office using the above-described prioritization process. Once a conceptual project is developed, NPDES staff will present the mitigation plan to the Stormwater Mitigation Approval Review Team (SMART), which shall be made up of managers from the following sections: Development Services, NPDES Office, Stormwater Administration, and Stormwater Maintenance. Once approved by SMART, mitigation expenditures can be initiated. The MWS NPDES Office shall organize and set up SMART meetings as needed.

**Mitigation Expenditures**

Mitigation expenditures will include the following:

- Survey, environmental assessment, geotechnical
- Preliminary and Final Design
- Construction and construction inspection
- Purchase of mitigation items to be installed (i.e. trees, monitoring equipment, signage, etc.)

- Long term maintenance
- Mitigation expenditures may cross fiscal years and will generally be considered Capital expenses

All expenditures will be tracked through the asset management and normal MWS Purchase Order (PO) process. It is expected that most work shall be contracted out to design and construction firms under contract available to MWS Stormwater. Separate POs may be opened for the design, construction, and construction management portions of projects. PO's may pass fiscal years as they will be regarded as capital improvements. The MWS NPDES Office shall oversee all billing and invoicing for contracted work.

#### **Revenue and Mitigation Tracking**

MWS will develop a Public Stormwater Quality Project Fund Report that details the revenue into the fund and the planned or completed mitigation projects to offset their reduced water quality requirement. The annual report would be an addendum to the TDEC MS4 Annual Report, which is submitted at the end of each fiscal year for Metro's NPDES MS4 permit compliance. The annual report will provide narrative and photographic documentation of the projects completed during the previous fiscal year. Mitigation projects may not be completed within the same year that the projects pay into the fund. Small projects paying into the Public Stormwater Quality Project Fund may also be mitigated by one larger project.